

REMARKS

Applicants have amended their claims in order to further clarify the definition of various aspects of the present invention. Specifically, Applicants have amended claim 1, as amended in the corresponding International Application on March 26, 2001, to recite that the adhesive is adapted to be used to electrically connect wiring terminals by interposing the adhesive between wiring substrates which are disposed so that the wiring terminals on faces of respective wiring substrates face each other, and heating the wiring substrates under application of a pressure. Applicants have further amended claim 1 to recite that the adhesive includes electrically conductive particles. In light of amendments to claim 1, claims 7 and 19-21 have been cancelled without prejudice or disclaimer.

In addition, Applicants are adding new claims 25-30 to the application. Of these newly added claims, claim 25, dependent on claim 1, recites that the electrically conductive particles have at least one of gold, silver, Ni, Cu, solder, carbon and a platinum group metal at least at the surface thereof; and claim 26, dependent on claim 1, recites that the radically polymerizable substance includes, as a part thereof, a radically polymerizable substance having a phosphoric ester structure represented by a specified chemical formula. Claim 27, dependent on claim 1, recites that the electrically conductive particles have at least one of gold, silver and a platinum group metal at least at the surface thereof. Claim 28, dependent on claim 1, recites amount of electrically conductive particles included in the adhesive; and claim 29, dependent on claim 1, recites flowability of the adhesive. Claim 30, dependent on claim 1, defines a modulus of elasticity after curing.

In connection with amendments to previously considered claims, and in connection with newly added claims, note, for example, to be illustrative and not to be limiting, pages 3, 4, 13, 20-22, 26 and 27 of Applicants' specification.

It is respectfully submitted that all of the newly added claims, claims 25-30, are directed to the elected invention as set forth in the Response filed June 28, 2004, in the above-identified application.

Applicants respectfully submit that all of the claims presented for consideration on the merits in the above-identified application patentably distinguish over the teachings of the reference applied by the Examiner in rejecting the claims in the Office Action mailed September 17, 2004, that is, the teachings of U.S. Patent No. 5,292,583 to Taki, et al., under the provisions of 35 U.S.C. § 103.

It is respectfully submitted that this references as applied by the Examiner would have neither taught nor would have suggested such a wiring-terminal-connecting adhesive as in the present claims, adapted to be used to electrically connect wiring terminals by interposing the adhesive between wiring substrates which are disposed so that the wiring terminals on faces of respective wiring substrates face each other, and heating the wiring substrates under application of a pressure, the adhesive including, inter alia, electrically conductive particles in addition to silicone particles, a curing agent capable of generating a free radical upon heating, and a radically polymerizable substance. See claim 1.

Moreover, it is respectfully submitted that this applied reference would have neither taught nor would have suggested the other features of the invention being considered on the merits in the above-identified application, as set forth in claims dependent on claim 1, including aspects as discussed previously in connection with

claim 1, and further including (but not limited to) the amount of silicone particles contained in the adhesive, as set forth in claims 2, 5 and 18; and/or wherein the adhesive further includes a film-forming material (see claim 3), the film-forming material being a phenoxy resin (see claim 4); and/or wherein the electrically conductive particles include a material as in claims 25 and 27 at least at the surface thereof; and/or wherein the radically polymerizable substance includes, as a part thereof, a radically polymerizable substance having a phosphoric ester structure as in claim 26; and/or amount of the electrically conductive particles included in the adhesive, as in claim 28; and/or flowability of the adhesive as in claim 29; and/or modulus of elasticity after curing, as in claim 30.

The adhesive according to the present invention is very suitable for providing a high bond strength, and including the conductive particles stabilizes the electrical connection between terminals, as described, for example, on page 20, first full paragraph, of Applicants' specification.

Taki, et al., discloses a thermal transfer recording sheet, comprising a base film, a heat transferable ink layer formed on one side of the base film and a heat resistant lubricating layer formed on the other side of the base film, the heat resistance lubricating layer containing fine elastomer particles. See column 1, lines 62-67. This patent discloses that a rubber having elasticity and heat resistance can be used as the fine elastomer particles, and that particularly preferred is a silicone rubber elastomer commonly known as silicone-gel. See column 2, lines 3-9. This patent goes on to disclose that the average particle size of the fine elastomer particles is preferably within a range of from 0.1 to 10 μm . See column 2, lines 46-50. Note also column 3, lines 3-7. This patent also discloses that it is preferred to

incorporate conventional inorganic or organic fine particles other than the fine elastomer particles, such as silica, alumina, titanium oxide or a phosphate to improve the cleaning properties by preventing deposition of foreign matters upon the thermal head. See column 3, lines 26-31. Note also column 3, lines 67-62, and column 4, lines 1-3, respectively describing the base film and the ink layer of the heat transfer recording sheet.

It is emphasized that Taki, et al. discloses a thermal transfer recording sheet. It is respectfully submitted that the teachings of this reference do not disclose, nor would have suggested, the adhesive according to the present invention, adapted to be used to electrically connect the specified wiring terminals, and wherein the adhesive includes, inter alia, electrically conductive particles.

The contention by the Examiner that the phrase "wiring terminal connecting adhesive" indicates a future intended use for the claimed composition, and does not lend any patentable weight to the claims, is noted. The claims have been amended to recite that the adhesive is adapted to be used to electrically connect wiring terminals. It is respectfully submitted that recitation of an adhesive, particularly adapted to be used as set forth in the present claims, further defines the composition and must be given weight in determining patentability.

Moreover, the claims presently recite that the adhesive includes electrically conductive particles. Particularly in view thereof, it is respectfully submitted that the teachings of Taki, et al. would have neither disclosed nor would have suggested the present invention.

The contention by the Examiner in connection with previous claim 7, in the first full paragraph on page 3 of the Office Action mailed September 17, 2004, that

Taki, et al. discloses the optional addition of alumina "which is a thermally conductive particle", is noted. Taki, et al. discloses incorporating, inter alia, alumina to improve cleaning properties by preventing deposition of foreign matters, not incorporating a thermally conductive particle. In any event, the present claims recite that the adhesive includes electrically conductive particles. It is respectfully submitted that the teachings of Taki, et al., even as interpreted by the Examiner, would have neither taught nor would have suggested an adhesive adapted to be used as recited in the present claims, and including electrically conductive particles.

In view of the foregoing comments and amendments, reconsideration and allowance of all claims presently in the application are respectfully requested. If the Examiner believes that there are any other points which may be clarified or otherwise disposed of either by telephone discussion or by personal interview, the Examiner is invited to contact Applicants' undersigned attorney at the number indicated below.

To the extent necessary, Applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to the Antonelli, Terry, Stout & Kraus,

Application No.: 10/069,273
Art Unit: 1712

Docket No.: 1303.41244X00
Page 13

LLP Deposit Account No. 01-2135 (Docket No. 1303.41244X00), and please credit
any excess fees to such Deposit Account.

Respectfully submitted,

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